

# **OPEN EXAMINATION**

AN EQUAL OPPORTUNITY EMPLOYER TO ALL REGARDLESS OF RACE, COLOR, CREED, NATIONAL ORIGIN, ANCESTRY, SEX, MARITAL STATUS, DISABILITY, RELIGIOUS OR POLITICAL AFFILIATION , AGE OR SEXUAL ORIENTATION.

IT IS AN OBJECTIVE OF THE STATE OF CALIFORNIA TO ACHIEVE A DRUG-FREE WORK PLACE. ANY APPLICANT FOR STATE EMPLOYMENT WILL BE EXPECTED TO BEHAVE IN ACCORDANCE WITH THIS OBJECTIVE BECAUSE THE USE OF ILLEGAL DRUGS IS INCONSISTENT WITH THE LAWS OF THE STATE, THE RULES GOVERNING CIVIL SERVICE, AND THE SPECIAL TRUST PLACED IN PUBLIC SERVANTS.

# AIR RESOURCES ENGINEER

**EXAM CODE: 8AR15** 

## **OPEN ONLY**

This is an open examination. Applications will not be accepted on a promotional basis. Career credits do not apply.

#### WHO SHOULD APPLY

Persons who meet the minimum qualifications as stated in the Job Bulletin under "Requirements for Admittance to the Examination."

## **HOW TO APPLY**

The Supplemental Application Examination Booklet and standard State Application (Form 678) may be obtained via the Internet at <a href="www.arb.ca.gov">www.arb.ca.gov</a>. If you do not have internet access, contact Rebecca Navarrete at (916) 324-7196 and one will be mailed to you. Upon completion, return your completed application package in person or by mail to:

#### AIR RESOURCES BOARD

Personnel/Examination Section 1001 - I Street/P.O. Box 2815 Sacramento, CA 95812

# DO NOT SUBMIT THE APPLICATIONS TO THE STATE PERSONNEL BOARD

#### **EXAMINATION INFORMATION**

The entire examination will consist of a Self-Assessment/Supplemental Application Questionnaire. This questionnaire is designed to elicit a range of specific information regarding each candidate's knowledge, abilities, experience, education, training, and potential to effectively perform the duties relative to the classification. Applicants that fail to meet the minimum requirements for entry and/or do not complete this questionnaire accurately will result in elimination from this examination. (Names of successful competitors are merged into the existing list in order of final scores, regardless of examination date.) NOTE: TESTING IS CONSIDERED CONTINUOUS AS DATES MAY BE SET AT ANY TIME. CANDIDATES MAY BE TESTED ONLY ONCE IN ANY 12 MONTH PERIOD.

Positions exist in Sacramento and El Monte.

**SALARY RANGE**: **A:** \$3574 - \$4136

**B:** \$4091 - \$4969 **C:** \$4868 - \$5914 **D:** \$5135 - \$6329

Range A applies to persons who do not meet the criteria for Range B, Range C, or Range D.

Range B applies to persons who have satisfactorily completed: (1) one year in the California state service performing air pollution engineering work comparable in level, duties and responsibilities to an Air Resources Engineer, Range A; or (2) two years of experience in air pollution engineering work comparable in level, duties and responsibilities to an Air Pollution Specialist or Air Resources Engineer, Range A; or (3) a Master's Degree in Engineering. Range C applies to persons who have satisfactorily completed either: (1) two years of experience in the California state service performing air pollu-

tion engineering work comparable in level, duties and responsibilities to an Air Resources Engineer, Range B; or (2) three years of increasingly responsible experience performing air pollution engineering work comparable in level, duties and responsibilities to that of an Air Resources Engineer, Range B, and education equivalent to graduation from college with major in engineering. (Possession of a Doctorate Degree in Engineering may be substituted for two years of experience. Possession of a Master's Degree in Engineering may be substituted for one year of experience.)

<u>Range D</u> applies to persons who possess a valid Certificate of Registration as a professional engineer, issued by the California State Board of Registration for Professional Engineers.

#### REQUIREMENTS FOR ADMITTANCE TO THE EXAMINATION

NOTE: All applicants must meet the minimum requirements in order to compete in this examination.

**EDUCATION:** Equivalent to graduation from a curriculum accredited by the Accreditation Board for Engineering and Technology with major work in environmental, chemical, electrical, sanitary, civil, mechanical, air resources or a related engineering field. (Registration as a senior in such a curriculum will admit the applicant to the examination, but the applicant must produce evidence of graduation before becoming eligible for appointment). (Possession of a valid certificate as an engineer-in-training as issued by the California State Board of Registration for Professional Engineers may be substituted for the required education).

# THE POSITION

Range A is the entry and first working level of the series. Incumbents assigned to Range A perform less difficult air pollution engineering work or motor vehicle pollution control engineering work under close supervision.

Range B is the intermediate working level at which the incumbent performs and assists higher level staff in air pollution-related engineering work of average difficulty.

<u>Range C</u> is the full (non-registered) journeyperson level. Incumbents perform difficult air pollution engineering work or motor vehicle pollution control engineering work.

Range D is the full (registered) journeyperson level. Incumbents perform the full range of the more difficult professional air pollution-related work and motor vehicle pollution control engineering work for the Air Resources Board.

# **SUPPLEMENTAL APPLICATION-WEIGHTED 100%**

# **SCOPE**

- A. Knowledge of:
- 1. Engineering principles relating to air resources.
- 2. Engineering sciences and mathematics.
- Instrumentation, methods and techniques of air sampling and determination of physical and chemical characteristics.
- 4. Pollutants.
- Factors contributing to air pollution in metropolitan areas and available control measures.

# SEE REVERSE SIDE FOR ADDITIONAL INFORMATION

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FINAL FILING DATE: CONTINUOUS FILING

# AIR RESOURCES ENGINEER Exam Code: 8AR15 (Open/Continuous)

- 6. Design and operation of air monitoring stations.
- 7. Scientific computer programming/modeling applications.
- 8. Air pollution control measures, laws and regulations in California.
- 9. Problems of industrial waste disposal and refuse disposal.
- Factors involved in the control of vehicular and stationary source emissions from internal combustion sources.
- Mechanical, chemical and electrical engineering as applied to testing and evaluating automotive exhaust control devices.
- Analysis, development, design, optimization, operation, testing and maintenance of control systems as related to air pollution control.
- 13. Meteorology as related to air pollution.
- Theory, practices and methods used in engineering work as related to air pollution control.
- Design and use of atmospheric pollution control devices and surveillance instruments, statistical techniques employed in the analysis of air pollution and meteorological data.
- 16. Economic and health effects of the discharge of pollutants into the atmosphere.

# B. Ability to:

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- Analyze, review, check and interpret air pollution control engineering plans, test data, estimates and specifications.
- Develop and adapt instrumentation and operating procedures for automotive engine and exhaust control device testing.
- Plan and carry out comprehensive automotive engineering studies and investigations.
- 4. Interpret and apply laws, rules and regulations pertaining to air

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- pollution in California.
- Design, develop and adapt instrumentation and operating procedures for air monitoring stations and other air quality measuring complexes.
- 6. Calibrate complex air monitoring equipment.
- 7. Apply computer programming and modeling skills.
- Conduct research and special studies on, and make recommendations for, the elimination or control of air pollution sources.
- Assist in research work and in the analysis of technical information pertaining to automatic control systems.
- 10. Establish and maintain cooperative working relationships.
- 11. Communicate effectively, analyze situations accurately and adopt an effective course of action.
- 12. Operate in a lead capacity for special studies and projects.

#### **ELIGIBLE LIST INFORMATION**

A department eligible list will be established for the California Air Resources Board. This examination will be administered on a continuous basis. Names of successful competitors are merged into the list in order of final scores regardless of date. Eligibility expires 12 months after it is established.

VETERANS PREFERENCE CREDIT will be added to the final score of all competitors who are successful in this examination and who qualify for and have requested these points. (NOTE: Due to changes in the law, which were effective January 1, 1996, Veterans who have achieved permanent civil service status are not eligible to receive Veterans Credits.)

**CAREER CREDITS** are not granted in open examinations.

#### **GENERAL INFORMATION**

"The energy challenge facing California is real. Every Californian needs take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our web-site at www.arb.ca.gov."

It is the candidate's responsibility to contact the Air Resources Board Exam Analyst, Rebecca Navarrete at (916) 324-7196 three days prior to the written test date if they have not received their notice.

For an examination without a written feature, it is the candidate's responsibility to contact the Air Resources Board Exam Analyst, Rebecca Navarrete (916) 324-7196 three weeks after the final filing date if they have not received a progress notice

If a candidate's notice of oral interview or performance test fails to reach them prior to the day of the interview due to a verified postal error, they will be scheduled upon written request.

Applications are available at the State Personnel Board offices, local offices of the Employment Development Department, the Air Resources Board and the State Personnel Board's Web site at http://www.spb.ca.gov.

If you meet the requirements stated on the reverse, you may take this examination, which is competitive. Possession of the entrance requirements does not assure a place on the eligible list. Your performance in the examination described on the other side of this bulletin will be compared with the performance of the others who take this test, and all candidates who pass will be ranked according to their scores.

The Air Resources Board reserves the right to revise the examination plan to better meet the needs of the service if the circumstances under which the examination was planned change. Such revision will be in accordance with civil service law and rules and all competitors will be notified. To find out more about the Air Resources Board connect to our Web site at: http://www.arb.ca.gov.

Examination Locations: When a written test is part of the examination, it will be given in such places in California as the number of candidates and conditions warrant. Ordinarily, oral interviews are scheduled in Sacramento and Los Angeles. However, locations of interviews may be extended as conditions warrant.

Eligible Lists: Eligible lists established by competitive examinations, regardless of date, must be used in the following order: 1) subdivisional promotional, 2) departmental promotional, 3) multidepartmental promotional, 4) servicewide promotional, 5) departmental open, 6) open. When there are two lists of the same kind, the older must be used first. Eligible lists will expire in from one to four years unless otherwise stated on this bulletin. In case of continuous testing examinations, names are merged into the appropriate eligible lists in order of final test scores (except as modified by veterans preference credits) regardless of the date of the test and the resulting eligible lists will be used only to fill vacancies in the area shown on the bulletin.

Veterans Preference: California law allows granting of veterans preference points in open entrance examinations and open nonpromotional examinations. Credit in open entrance examinations is granted as follows: 10 points for veterans, widows or widowers of veterans and spouses of 100% disabled veterans; and 15 points for disabled veterans. Credit in open nonpromotional examinations is granted as follows: Five (5) points for veterans; and 10 points for disabled veterans. Veteran's preference credits will be added to the final score of those competitor's who are successful in this examination, and who qualify for, and have requested these points. Due to the changes in the law, which were effective January 1, 1996, VETERANS WHO HAVE ACHIEVED PERMANENT CIVIL SERVICE STATUS ARE NOT ELIGIBLE TO RECEIVE VETERAN'S CREDITS. Directions for applying for veterans preference are on the Veterans Preference Application form (Form 1093) which is available from the State Personnel Board, 801 Capitol Mall, Sacramento, CA 95814, and the Department of Veteran's Affairs, P. O. Box 942895, Sacramento, CA 94295-0001.

Interview Scope: If an interview is conducted, in addition to the scope described above, the panel will consider education, experience, personal development, personal traits, and fitness. In appraising experience, more weight will be given to the breadth and recency of pertinent experience and evidence of the candidate's ability to accept and fulfill increasing responsibilities than to the length of their experience. Evaluation of a candidate's personal development will include consideration of their recognition of their own training needs; their plans for self-development; and the progress they have made in their efforts toward self-development.

High School Equivalence: Equivalent to completion of the 12th grade may be demonstrated in any one of the following ways; 1) passing the General Educational Development (GED) Test; 2) completion of 12 semester units of college-level work; 3) certification from the State Department of Education, a local school board, or high school authorities that the candidate is considered to have education equivalent to graduation from high school; or 4) for clerical and accounting classes, substitution of business college work in place of high school on a year-for-year basis.

To obtain this document in an alternative format or if you have special accommodation needs, contact the ADA Coordinator at (916) 323-4916.

For specific examination questions contact the Exam Analyst at (916) 327-2954.

TTY/TDD/Speech-to-Speech users may dial 711 for the California Relay Service.